

Do Medical Device Firm Payments To Physicians Affect Hospital Purchasing Decisions?

Why This Study Is Important

Prior research has shown that pharmaceutical payments to physicians can influence their practice decisions and cause them to favor use of these drugs, raising possible concerns about quality of patient care. This study extends that research to the more complex world of medical device industry payments, where physicians receive the payments and choose the devices, but the hospitals where they practice procure and pay for them. Results indicate that payments to physicians are associated with hospitals' procurement decisions favoring the firms making the payments.

What This Study Found

- When a hospital's affiliated physicians receive payments related to ten top-spending product categories, or more payments, the hospital is more likely to contract with paying firms and to purchase more of the paying firms' devices.
- These associations hold across a variety of device types, and are greater for the first dollar of payments received than for any incremental increase in payments. The associations are also higher for commonly-provided low-dollar meal payments than for less common but more lucrative arrangements such as educational opportunities, consulting fees or ownership-related payments.
- Hospitals shift their total device purchases in favor of the paying firms, rather than purchasing more devices overall or paying higher prices.
- When a hospital's affiliated physicians experience a large increase in device payments, there is a large and contemporaneous increase in the hospital's purchases of the paying firm's product.
- Firm payments are correlated with the extent of deviation from purchasing decisions made by top academic medical centers whose physicians do not receive substantial device payments, arguably a gold standard for purchasing decisions based principally on device quality.

Bergman A, Grennan M and Swanson A. "Lobbying Physicians: Payments from Industry and Hospital Procurement of Medical Devices." National Bureau of Economic Research, Working Paper 29583, December 2021.

What These Findings Mean

Medical device costs are a large component of health care spending, and the industry makes substantial payments to physicians. These device payments are larger than pharmaceutical industry payments, and most hospitals have affiliated physicians receiving device payments. Results from this study establish a positive association between payments to physicians and sales to hospitals and, to the extent that there is meaningful quality variation in the product categories analyzed, suggest that payments may be correlated with suboptimal quality. While the study does not find evidence of the most concerning behaviors highlighted in the news media – e.g., of payments raising prices or leading to unnecessary procedures, or of payment effects being driven by lucrative speaking, consulting, or ownership relationships – they do suggest that industry payments merit further study. It will be important to understand the close relationships between device manufacturers and physicians and to balance any policy interventions with the potential benefits that come from shared expertise in product development and use.

More About This Study

This study combined 2014-2017 data on medical device industry payments to physicians with data on hospital medical device purchases. The analyses focused on ten commonly-used devices and 933 hospitals that had purchased these devices. Regressions explored the associations between industry payments and the value of device sales made by the firm to the hospital, the quantity of devices purchased, the average unit price paid, and the firm's market share of the hospital's device purchases. Payments in the form of meals, training, consulting fees and ownership benefits were considered separately. An additional event analysis isolated the associations when payments to a hospital increased dramatically. Finally, examination of the extent to which purchasing decisions deviated from those of top teaching hospitals whose physicians received lower industry payments explored whether industry payments are associated with suboptimal purchasing by hospitals.

For more information about this study, contact Dr. Matthew Grennan at mgrennan@berkeley.edu. For more information about the NIHCM Foundation Investigator-Initiated Research Grant Program, contact Cait Ellis at cellis@nihcm.org.